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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/779,945	BUSHEY ET AL.	
	Examiner	Art Unit	
	Dorothy Sarah Siedler	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 4, 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the user interaction module". There is insufficient antecedent basis for this limitation in the claim. The examiner interprets this limitation as "a user interaction module", this interpretation used throughout the remainder of this office action.

Claims 16 and 17 recite the limitation "second dialog state error counter". There is insufficient antecedent basis for this limitation in the claim. Additionally, claims 16 and 17 are dependent from claim 14 and this information, combined with the noted lack of antecedent basis, make it unclear as to whether the "second" dialog state error counter claimed in claims 16 and 17 was simply a typographical error and was meant to refer to the "third dialog state error counter" claimed in claim 15, or if the intention was to claim a different dialog state counter completely.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 4 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by ***Gorin*** (6,751,591).

2. As per claim 4, ***Gorin*** discloses a system for managing recognition errors in a multiple dialog state environment comprising:

an error management module having a global error counter (column 4 lines 3-28, *the training database stores language understanding errors (global errors) collected in interactions with human users)* and a global error set point (column 7 lines 59-67, *the NLU monitor determines whether the input can be understood so that the task can be classified. If the task cannot be classified, i.e. there is a recognition error, the system changes operational flow to attempt to remedy the error. Therefore the system must have an global error set point, since system function transitions from normal recognition to error correction once that point is reached)*;

a user interaction module in communication with the error management module and operable to interact with users to perform at least one interaction task (column 9 line 29 – column 10 line 38 and Figure 1 items 180 and 190*)*;

the user interaction module operable to interact with the user via at least two dialog states (column 9 line 29 – column 10 line 38, *a user's initial response is recognized and either classified into a specific task classification or processed as a recognition error. If the user's initial response is not completely recognized, the dialog manager uses sub-modules to perform a second exchange with the user)*;

the user interaction module operable to determine whether an interaction task has been successfully completed or if a recognition error has occurred (column 9 line 29 – column 10 line 38, *for each exchange with the user the NLU monitor determines whether the input can be understood so that the task can be classified*);

the user interaction module further operable to communicate the occurrence of a recognition error to the error management module (column 4 lines 3-28, *the training database stores language understanding errors (global errors) collected in interactions with human users)*; and

the user interaction module operable to determine whether to direct a user to an agent based upon the global error counter and the global error set point (column 9 line 29 – column 10 line 38, *for each exchange with the user the NLU monitor determines whether the input can be understood so that the task can be classified. If the input*

communication is not recognized the dialog manager is signaled to route the call to a human for assistance);

3. As per claim 5, ***Gorin*** discloses the system of claim 4, and further discloses the global error set point equal to at least one and the user interaction module directs the user to an agent if the global error counter is equal to the global error set point (column 9 line 29 – column 10 line 38, *for each exchange with the user the NLU monitor determines whether the input can be understood so that the task can be classified. If the input communication is not recognized the dialog manager is signaled to route the call to a human for assistance*);

. .

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Gorin*** (6,751,591) in view of ***Dunn*** (6,138,008).

4. As per claim 1, ***Gorin*** a system for managing recognition errors in a multiple dialog state environment comprising:

an error management module having a global error counter (column 4 lines 3-28, *the training database stores language understanding errors (global errors) collected in interactions with human users)* and a global error set point (column 7 lines 59-67, *the NLU monitor determines whether the input can be understood so that the task can be classified. If the task cannot be classified, i.e. there is a recognition error, the system changes operational flow to attempt to remedy the error. Therefore the system must have an global error set point, since system function transitions from normal recognition to error correction once that point is reached)*;

a first dialog state module operable to interact with a user to perform at least one interaction task (column 9 line 29 – column 10 line 38, *a user's initial response is recognized and either classified into a specific task classification or processed as a recognition error)*;

a second dialog state module operable to interact with a user to perform at least one interaction task (column 9 line 29 – column 10 line 38, *if the user's initial response is not completely recognized, the dialog manager uses sub-modules to perform a second exchange with the user)*;

a third dialog state module operable to interact with a user to perform at least one interaction task (column 9 line 29 – column 10 line 38, *if the second exchange with the user is not recognized the dialog manager performs a third exchange with the user)*;

each dialog state module further operable to:

determine whether the interaction task has been successfully completed or whether a recognition error has occurred (column 9 line 29 – column 10 line 38, *for each exchange with the user the NLU monitor determines whether the input can be understood so that the task can be classified*);

direct the user to an agent if the global error counter equals the global error set point (column 9 line 29 – column 10 line 38, *for each exchange with the user the NLU monitor determines whether the input can be understood so that the task can be classified. If the input communication is not recognized the dialog manager is signaled to route the call to a human for assistance*);

re-prompt the user to complete the interaction task (column 7 lines 12-25*)*;

and selectively directing the user to a subsequent interaction task after successful completion of the interaction task (column 9 line 29 – column 10 line 38, *at each exchange the dialog manager performs either a subsequent exchange for further information to classify the task, or uses a sub-module to perform the specific recognized task)*.

Gorin does not disclose a first dialog state error counter, a first dialog state error set point, a second dialog state error counter, a second dialog state error set point, a third dialog state error counter, and a third dialog state error set point. In the same field of endeavor, ***Dunn*** teaches a first dialog state error counter, a first dialog state error set point, a second dialog state error counter, a second dialog state error set point, a third

dialog state error counter, and a third dialog state error set point (column 5 lines 47 – column 6 line 47). ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state. If the number of errors reaches a predetermined maximum (dialog state error set point), then the call is routed to an operator.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have a first dialog state error counter, a first dialog state error set point, a second dialog state error counter, a second dialog state error set point, a third dialog state error counter, and a third dialog state error set point in ***Gorin***, since it would reduce the number of re-prompts at each dialog state, creating a more user friendly system since continuous re-prompts are frustrating to users, as indicated in ***Gorin*** (column 7 lines 47-49).

Gorin also does not disclose updating the global error counter and the respective dialog counter if an error is detected. However, ***Gorin*** does disclose a system that stores language understanding errors (global errors) collected in interactions with human users (column 4 lines 3-28). In the same field of endeavor, ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state. If the number of errors reaches a predetermined maximum (dialog state error set point), then the call is routed to an operator.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to update the global error counter and the respective dialog counter if an error is detected in ***Gorin***, since it would reduce the number of re-prompts at each dialog state, creating a more user friendly system since continuous re-prompts are frustrating to users, as indicated in ***Gorin*** (column 7 lines 47-49).

Gorin also does not disclose directing the user to a different dialog state if the respective dialog state error counter equals the respective dialog state error set point. However, ***Gorin*** does disclose that if a communication from the user isn't recognized, the dialog manager conducts further communication (different dialog state) with the user to clarify the user's request (column 9 line 29 – column 10 line 38). Additionally, in the same field of endeavor, ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to direct the user to a different dialog state if the respective dialog state error counter equals the respective dialog state error set point in ***Gorin***, since it would enable the system to correct errors automatically or to interact with the users to repair them, as indicated in ***Gorin*** (column 2 lines 31-34).

Finally, ***Gorin*** does not disclose re-prompting the user to complete the interaction task if the respective dialog state error counter is less than the respective dialog state

error set point. However, ***Gorin*** does disclose a dialog manager that re-prompts the user during a dialog to confirm its understanding, and complete the interaction task (column 7 lines 12-25*)*. Additionally, in the same field of endeavor, ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to re-prompt the user to complete the interaction task if the respective dialog state error counter is less than the respective dialog state error set point in ***Gorin***, since it would reduce the number of re-prompts at each dialog state, creating a more user friendly system since continuous re-prompts are frustrating to users, as indicated in ***Gorin*** (column 7 lines 47-49).

5. As per claim 2, ***Gorin*** in view of ***Dunn*** disclose the system of claim 1, and ***Gorin*** further discloses the first dialog state module operable to interact with the user via a natural language dialog (column 2 lines 19-34, automated dialog system). ***Gorin*** does not explicitly disclose the second dialog state module operable to interact with the user via a speech directed dialog and the third dialog state module operable to interact with the user via a touch tone dialog. However, ***Gorin*** does disclose that the natural language understanding system is capable of understanding any form of communication which may be expressed verbally, nonverbally, multimodally, etc. (column 3 lines 33),

and includes keypad entries and DTMF codes. This suggests that the system is capable understanding speech directed and touch tone dialog. In addition, ***Dunn*** discloses a system that enables either spoken or touch tone input (column 5 lines 60-67).

Therefore it would have been obvious to one of ordinary skill in the art to have the second dialog state module operable to interact with the user via a speech directed dialog and the third dialog state module operable to interact with the user via a touch tone dialog in ***Gorin***, since one of ordinary skill in the art has good reason to pursue the options within is or her technical grasp in order to accommodate rotary phones, as indicated in Dunn (column 5 lines 60-67), as well as accommodate a users communication preference or need, for example with disabled users.

6. As per claim 3, ***Gorin*** in view of ***Dunn*** disclose the system of 2, and ***Gorin*** further discloses the global error set point equal to at least one (column 7 lines 59-67, *the NLU monitor determines whether the input can be understood so that the task can be classified. If the task cannot be classified, i.e. there is a recognition error, the system changes operational flow to attempt to remedy the error. Therefore the system must have a global error set point, since system function transitions from normal recognition to error correction once that point is reached*). ***Gorin*** does not disclose the first dialog state error set point equal to at least two, the second dialog state error set point equal to at least one, and the third dialog state error set point equal to at least one. ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of

menu options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state. In each state, the system either continues a dialog with the user or transfers the call to an agent, dependent upon the total number of errors as compared to a predetermined total.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the first dialog state error set point equal to at least two, the second dialog state error set point equal to at least one, and the third dialog state error set point equal to at least one in ***Gorin***, since one of ordinary skill has good reason to pursue the options within his or her technical grasp in order to achieve the predictable result of optimizing the system to meet the needs of the designer.

7. As per claim 6, ***Gorin*** discloses the system of claim 4, however ***Gorin*** does not disclose: the error management having a first dialog state error counter, a second dialog state error counter, and a third dialog state error counter, a first dialog state error set point; a second dialog state error set point and a third dialog state error set point; the user interaction module operable to communicate the occurrence of a recognition error during use of a particular dialog state to the management module. ***Dunn*** teaches a first dialog state error counter, a first dialog state error set point, a second dialog state error counter, a second dialog state error set point, a third dialog state error counter, and a third dialog state error set point (column 5 lines 47 – column 6 line 47). ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu

options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state. If the number of errors reaches a predetermined maximum (dialog state error set point), then the call is routed to an operator.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have a first dialog state error counter, a first dialog state error set point, a second dialog state error counter, a second dialog state error set point, a third dialog state error counter, and a third dialog state error set point in ***Gorin***, since it would reduce the number of re-prompts at each dialog state, creating a more user friendly system since continuous re-prompts are frustrating to users, as indicated in ***Gorin*** (column 7 lines 47-49).

8. As per claim 7, this claim recites limitations similar to those recited in claim 2, and is therefore rejected fro a similar reason.

9. As per claim 8, ***Gorin*** in view of ***Dunn*** disclose the system of claim 7, but ***Gorin*** does not disclose the user interaction module operable to direct a user to the second dialog module to complete the interaction task after detecting a recognition error from the first dialog state module and determining that the first dialog state counter is equal to the first dialog state error set point. However, ***Gorin*** does disclose that if a communication from the user isn't recognized, the dialog manager conducts further

communication (different dialog state) with the user to clarify the user's request (column 9 line 29 – column 10 line 38). In addition, ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to direct a user to the second dialog module to complete the interaction task after detecting a recognition error from the first dialog state module and determining that the first dialog state counter is equal to the first dialog state error set point in ***Gorin***, since it would enable the system to correct errors automatically or to interact with the users to repair them, as indicated in ***Gorin*** (column 2 lines 31-34).

10. As per claim 9, ***Gorin*** in view of ***Dunn*** disclose the system of claim 7, but ***Gorin*** does not disclose the user interaction module operable to direct a user to the third dialog module to complete the interaction task after detecting a recognition error resulting from the second dialog state module and determining that the second dialog state counter is equal to the second dialog state error set point. However, ***Gorin*** does disclose that if a communication from the user isn't recognized, the dialog manager conducts further communication (different dialog state) with the user to clarify the user's request (column 9 line 29 – column 10 line 38). In addition, ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu options (dialog

states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to direct a user to the second dialog module to complete the interaction task after detecting a recognition error from the first dialog state module and determining that the first dialog state counter is equal to the first dialog state error set point in ***Gorin***, since it would enable the system to correct errors automatically or to interact with the users to repair them, as indicated in ***Gorin*** (column 2 lines 31-34).

11. As per claim 10, ***Gorin*** in view of ***Dunn*** disclose the system of claim 7, but ***Gorin*** does not disclose the user interaction module operable to direct a user to an agent to complete the interaction task after detecting a recognition error resulting from the third dialog state module and determining that the third dialog state counter is equal to the third dialog state error set point. However, ***Gorin*** does disclose a system that makes repeated attempts to understand an input communication, and if those fail the call is routed to an agent (column 9 line 29 – column 10 line 38). In addition, ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the user interaction module operable to direct a user to an

agent to complete the interaction task after detecting a recognition error resulting from the third dialog state module and determining that the third dialog state counter is equal to the third dialog state error set point in ***Gorin***, since it would reduce the number of re-prompts at each dialog state, creating a more user friendly system since continuous re-prompts are frustrating to users, as indicated in ***Gorin*** (column 7 lines 47-49).

12. As per claim 11, ***Gorin*** in view of ***Dunn*** disclose the system of claim 7, and ***Gorin*** further discloses the user interaction module operable to re-prompt the user to complete the interaction task using the last-used dialog state module after detecting a recognition error resulting from using the last-used dialog state module (column 7 lines 12-25*)*.However, ***Gorin*** does not disclose determining that the respective dialog state counter is less than the respective dialog state error set point. ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to determine that the respective dialog state counter is less than the respective dialog state error set point in ***Gorin***, since it would reduce the number of re-prompts at each dialog state, creating a more user friendly system since continuous re-prompts are frustrating to users, as indicated in ***Gorin*** (column 7 lines 47-49).

13. As per claim 12, ***Gorin*** in view of ***Dunn*** disclose the system of claim 6, however neither explicitly disclose the global error set point operable to be selectively changed based upon agent availability. However, both ***Gorin*** (column 9 line 29 – column 10 line 38) and ***Dunn*** (column 6 and 7) use error counters that are compared to a pre-determined threshold; that comparison then determining further system function, including when to route the call to an agent.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to the global error set point operable to be selectively changed based upon agent availability in ***Gorin***, since one of ordinary skill has good reason to pursue the options within his or her technical grasp in order to achieve the predictable result of optimizing the system to meet the needs of the designer and system function with a specific environment.

14. As per claim 13, ***Gorin*** in view of ***Dunn*** disclose the system of claim 7, and ***Gorin*** further discloses the user interaction module operable to direct the user to a subsequent interaction task using the last-used dialog state after determining that the interaction task has been successfully completed (column 9 line 29 – column 10 line 38, *at each exchange the dialog manager performs either a subsequent exchange for further information to classify the task, or uses a sub-module to perform the specific recognized task)*.

15. As per claim 14, ***Gorin*** discloses an error management module for use with a communication system operable to support a multiple dialog state environment comprising:

a global error counter operable to record the total number of recognition errors experienced by the communication system during an interaction with a particular user (column 4 lines 3-28, *the training database stores language understanding errors (global errors) collected in interactions with human users)*;

a global error set point (column 7 lines 59-67, *the NLU monitor determines whether the input can be understood so that the task can be classified. If the task cannot be classified, i.e. there is a recognition error, the system changes operational flow to attempt to remedy the error. Therefore the system must have an global error set point, since system function transitions from normal recognition to error correction once that point is reached)*;

the error management module operable to provide the global error counter and the global error set point (column 4 lines 3-28 and column 7 lines 59-67).

Gorin does not disclose a first dialog state error counter operable to record the number of errors experienced by the communication system while using a first dialog state during an interaction with the particular user, a first dialog state error set point, and the error management module operable to provide the first dialog state error counter, and the first state error set point to the communication system for managing dialog state recognition errors. In the same field of endeavor, ***Dunn*** teaches a first dialog state error

counter, a first dialog state error set point, a second dialog state error counter, a second dialog state error set point, a third dialog state error counter, and a third dialog state error set point (column 5 lines 47 – column 6 line 47). ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state. If the number of errors reaches a predetermined maximum (dialog state error set point), then the call is routed to an operator.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to a first dialog state error counter operable to record the number of errors experienced by the communication system while using a first dialog state during an interaction with the particular user, a first dialog state error set point, and the error management module operable to provide the first dialog state error counter, and the first state error set point to the communication system for managing dialog state recognition errors in ***Gorin***, since it would reduce the number of re-prompts at each dialog state, creating a more user friendly system since continuous re-prompts are frustrating to users, as indicated in ***Gorin*** (column 7 lines 47-49).

16. As per claim 15, ***Gorin*** in view of ***Dunn*** disclose the error management module of claim 14, however ***Gorin*** does not disclose a third dialog state error counter operable to record the number of errors experienced by the communication system using a third

dialog state during an interaction with the particular user, and a third dialog state error set point. ***Dunn*** discloses a wireless telephone menu system that provides the user with a plurality of menu options (dialog states), and uses an error counter to count the number or invalid or unrecognized input communications from the user during a specific dialog state.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to direct a user to the second dialog module to complete the interaction task after detecting a recognition error from the first dialog state module and determining that the first dialog state counter is equal to the first dialog state error set point in ***Gorin***, since it would reduce the number of re-prompts at each dialog state, creating a more user friendly system since continuous re-prompts are frustrating to users, as indicated in ***Gorin*** (column 7 lines 47-49).

17. As per claim 16, ***Gorin*** in view of ***Dunn*** disclose the error management module of claim 14, but ***Gorin*** does not disclose the global error counter, first dialog state error counter and second dialog state error counter operable to be selectively reset after completing an interaction with a user. ***Dunn*** discloses resetting the various counters used within the system (column 4 lines 33-35).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to selectively reset the global and first dialog state error counters in ***Gorin***, since one of ordinary skill in the art has good reason to pursue the options within

his or her technical grasp in order to achieve the predictable result of maintaining an accurate count of errors for an individual during a task.

18. As per claim 17, this claim recites limitations similar to those recited in claim 16, and is therefore rejected for similar reasons.

19. As per claim18, ***Gorin*** discloses a method for managing recognition errors in a multiple dialog state environment comprising:

setting a global error set point to a predefined value (column 7 lines 59-67, *the NLU monitor determines whether the input can be understood so that the task can be classified. If the task cannot be classified, i.e. there is a recognition error, the system changes operational flow to attempt to remedy the error. Therefore the system must have an global error set point, since system function transitions from normal recognition to error correction once that point is reached)*;

monitoring recognition errors within a multiple dialog state environment (Abstract);

directing a user to an agent if the global error counter is equal to the global error set point (column 9 line 29 – column 10 line 38, *for each exchange with the user the NLU monitor determines whether the input can be understood so that the task can be classified. If the input communication is not recognized, and the probability of*

recognizing the communication is low, the dialog manager is signaled to route the call to a human for assistance).

Gorin does not disclose incrementally increasing a global error counter after a recognition error is detected. However, ***Gorin*** does disclose a global error counter (column 4 lines 3-18). In addition, ***Dunn*** discloses a system that incrementally increases an error counter after a recognition error has occurred (columns 6 and 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incrementally increase the global error counter in ***Gorin***, since it would reduce the number of re-prompts at each dialog state, creating a more user friendly system since continuous re-prompts are frustrating to users, as indicated in ***Gorin*** (column 7 lines 47-49).

20. As per claim 19, this claim recites limitations similar to claims 16 and 17, and is therefore rejected for similar reasons.

21. As per claim 20, this claim recites limitations similar to those recited in claim 1, and is therefore rejected for similar reasons.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see the PTO-892 from.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dorothy Sarah Siedler whose telephone number is 571-270-1067. The examiner can normally be reached on Mon-Thur 9:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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DSS